

United States Patent [19]

Montezinos

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[54]	METHOD OF MAKING BEVERAGES
	HAVING STABLE FLAVOR/CLOUD
	EMULSIONS IN THE PRESENCE OF
	POLYPHOSPHATE-CONTAINING
	PRESERVATIVE SYSTEMS AND LOW
	LEVELS OF XANTHAN GUM

[75] Inventor: David Lee Montezinos, Fairfield, Ohio

Assignee: The Procter & Gamble Company,

Cincinnati, Ohio

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Field of Search 426/590, 599, 426/597, 573, 654

[56] References Cited

U.S. PATENT DOCUMENTS

2,764,486	9/1956	Stevens et al 99/78
3,404,987	10/1968	Kooistra et al 99/150
3,668,132	6/1972	Finder 252/80
3,681,091	8/1972	Kohl 99/150
4,037,000	7/1977	Burge et al 426/572
4,163,807	8/1979	Jackman 426/599
4,219,583	8/1980	Igoe
4,220,673	9/1980	Strobel 426/655
4,448,000	5/1984	De Leon et al 426/599
4,529,613	7/1985	Mezzino et al 426/590
4,705,691	11/1987	Kupper et al 426/590
4,717,579	1/1988	Vietti et al 426/597
4,746,528	5/1988	Prest et al 426/573
4,748,033	5/1988	Syfert et al 426/330.3
4,906,482	3/1990	Zemel et al 426/74
4,938,983	7/1990	Peignier et al 426/573
4,980,182	12/1990	Kwon et al 426/130

5,021,251	6/1991	McKenna et al 426/330.5
5,273,767	12/1993	Burgum 426/240
5,417,994	5/1995	Chang et al 426/330.5
5,431,940	7/1995	Calderas et al 426/330.3

FOREIGN PATENT DOCUMENTS

93/08704 5/1993 WIPO. 96/00510 1/1996 WIPO.

OTHER PUBLICATIONS

Kang et al.; Xanthan, Gellan, Welan and Rhamsan; Industrial Gums, Polysaccharides and Their Derivatives; 3rd Edition; Harcourt Brace Jovanovich, Publishers; 1993; pp. 342-396.

Clare; Applications of novel biogums; Chemicals; Aug. 1989; pp. 238-244.

Patent Abstracts of Japan, vol. 012, No. 312 (C-523) Aug. 24, 1988 and JP 63 084465 A.

Chemical Abstracts; M. Kagaku et al.; vol. 95, No. 21, Nov. 23, 1981; p. 523.

V.J. Morris; Biotechnically Produced Carbohydrates with Functional Properties for Use In Food Systems Food Technology, 4(1) (1990) pp. 45-57.

Rengaswami Chandrasekaran, et al; The Crystal Structure of Gellan Carbohydrate Research, 175 (1988)) pp. 1-15.

I.W. Sutherland; The Role of Acylation in Exopolysaccharides Including Those for Food Use Food Biotechnology 6(1), (1992) pp. 75–86.

Primary Examiner—Helen Pratt Attorney, Agent, or Firm—Gerry S. Gressel; Karen F. Clark; Jacobus C. Rasser

ABSTRACT

A beverage such as a dilute juice or tea beverage having a stable flavor/cloud emulsion that contains from about 0.005 to about 0.015% xanthan gum, from about 100 ppm to about 1000 ppm of a preservative which can be sorbic acid, benzoic acid and, alkali metal salts thereof and mixtures thereof, from about 300 ppm to about 3000 ppm of a food grade water soluble polyphosphate, and from about 60 to about 99% by weight of added water having from 0 ppm to about 180 ppm of hardness.

15 Claims, No Drawings